

**An algorithm for the selection of planting lining technique towards optimizing land area: an algorithm for planting lining technique selection**

**ABSTRACT**

This paper presents the design of algorithm solution for selecting a planting lining technique. The three techniques with different planting lining direction lead to different number of trees, therefore the technique promotes the highest number of tree is optimal technique. Optimization refers to the maximum number for better area utilization. The huge possible solution and uncertain result make the problem complex and it requires an intelligent expect for the solution. The algorithm is designed based on two basic works in which to calculate number of trees and divide an area into blocks. This algorithm solution generated the dataset based coordinates areas to analyze the techniques. The result shows that for small area the technique to be chosen is inconsistent but in large area the technique-3 is preferred. The series of generate results by the algorithm is also reported in this paper.

**Keyword:** Optimization; Planting lining; Block division; Genetic algorithm; Integer programming